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Docket 80995RRS
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Elizabeth Rosenzweig, et al

TIMELINE-BASED GRAPHICAL
USER INTERFACE FOR
EFFICIENT IMAGE DATABASE
BROWSING AND RETRIEVAL

Serial No. 09/742,028

Filed December 20, 2000

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Group Art Unit: 2174

Examiner: Peng Ke

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APPEAL BRIEF TRANSMITTAL

Enclosed herewith in triplicate is Appellants' Appeal Brief for the above-identified application.

The Commissioner is hereby authorized to charge the Appeal Brief filing fee to Eastman Kodak Company Deposit Account 05-0225. **A duplicate copy of this letter is enclosed.**

Respectfully submitted,

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APPEAL BRIEF PURSUANT TO 37 C.F.R. 1.192

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APPELLANT'S BRIEF ON APPEAL

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the Examiner's Final Rejection of claims 1-32 which was contained in the Office Action mailed January 28, 2004.

A timely Notice of Appeal was filed May 6, 2004.

Real Party In Interest

As indicated above in the caption of the Brief, the Eastman Kodak Company is the real party in interest.

Related Appeals And Interferences

No appeals or interferences are known which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

Status Of The Claims

Claims 1-32 are pending in the application and stand rejected.

Appendix I provides a clean, double-spaced copy of the claims on appeal.

Status Of Amendments

The filing issues are presented for review by the Court of Appeals and patent interferences:

1. Are the claims of Group I allowable under 35 USC section 103 over Ubillos in view of Sciammarella?
2. Are the claims of Group II allowable under 35 USC section 103 over Ubillos in view of Sciammarella et al. and further in view of Patton et al. ?
3. Are the claims of Group III allowable under 35 USC section 103 over Ubillos in view of Sciammarella et al. and further in view of Patton et al.?
4. Are the claims of Group IV allowable under 35 USC section 103 over Ubillos in view of Sciammarella et al. and further in view of Patton et al.?

Summary Of The Invention

By way of summary, the present invention claims, a general graphical user interface adapted to allow a user to browse and retrieve pictures stored in a digital image database. The graphical user interface has a metadata decoder adapted to decode metadata stored in a digital image files. A first display level is constructed with the decoded metadata. Said first display level has a first metaphor representing the span of time over which pictures stored in the database are captured. This allows a user to determine from the first graphical metaphor the entire span of time over which the digital images within the database have been captured. The first display level also has a plurality of first icons placed on said first metaphor representing predefined temporal intervals. The first icons are proportionately sized to correspond to the number of pictures captured during a predefined temporal interval. This allows a user to, observe along the timeline of a presenting the entire span of time over which the images are captured determined at which intervals images in the database or captured. This also allows a user to ascertain the relative number of pictures captured for each interval. Accordingly, by looking at the first display level, a user of the graphical user interface can determine both the span of time over which all the images captured in the database are captured and the relative number of images captured during particular times. It will be appreciated that, in many situations, such a display will be highly useful to consider to determine whether a database has any images captured within a particular time frame, and if so, the relative number thereof.

At least a second display level is provided and is constructed with the decoded metadata. The second display level is linked to the first display level and triggered by activating one of said first icons. The second display level comprises a second metaphor and second icons placed on the second metaphor for grouping the pictures represented by the activated first icons. The second icons are proportionately sized to correspond to the number of pictures captured for each grouping. In this way, if a user of the first display level determines that user wishes to explore images captured within a particular timeframe, the user merely needs to click the icon on the first display level to transition to the second display

level and see icons representing groups of pictures also represented by the first icons. In this way, a user can transition from initial level of time-based organization to observe pitchers with any timeframe grouped according to any number of characteristics.

Issues For Review By The Board

The following issues are presented for review by the Board of Patent Appeals and Interferences:

1. Are the claims of Group 1 allowable under 35 USC section 103 over Ubillos in view of Sciammarella ?
2. Are the claims of Group 2 allowable under 35 USC section 103 over Ubillos in view of Sciammarella ?
3. Are the claims of Group 3 allowable under 35 USC section 103 over Ubillos in view of Sciammarella and further in view of Patton et al. ?
4. Are the claims of Group 4 allowable under 35 USC section 103 over Ubillos in view of Sciammarella and further in view of Patton et al. ?

Grouping Of Claims

Group I Claims 1, 2, 3, 4, 9, 17, 18, 19, 20 and 25. For the purposes of this appeal only, the claims of Group I stand and fall together.

Group II claims 5, 6, 21, 22. The claims of Group II stand separately.

Group III Claims 7, 8, 23, 24. The claims of Group III stand separately.

Group IV Claims 10, 11, 12, 13, 14, 15, 16, 26, 27, 28, 29, 30, 31 and 32.

For the purposes of this appeal only, the claims of Group I stand and fall together.

Arguments

A. The Rejection

The Examiner has rejected claims 1-4, 9, 17-20 and 25 under 35 U.S.C. 103(a) as being unpatentable over Ubillos et al. (USP) in view of Sciammarella (USP). The Examiner's comments with respect claim 1 are illustrative as to the grounds for rejecting these claims:

As per claim 1 Ubillos teaches a graphical user interface adapted to browse and retrieve picture stored in a digital image; database, said graphical user interface comprising (column to, lines 8-16).

The Examiner infers a database that stores a series of digital images to be a broad range a data.

A metadata decoder adapted to decode metadata stored in digital image files; a first display level constructed with the aid of decoded metadata, said first display level comprising a first metaphor representing the span of time over which picture stored in said database were captured (column 1, lines 23-38) and at least a 2nd display level constructed with the aid of decoded metadata and linked to said first display level (column 2), lines 30-38).

The Examiner considers the display that is displayed once a user has zoomed in to be a 2nd display level.

However, Ubillos fails to teach the interface further comprises: a plurality of first icons placed on said first metaphor representing predefined temporal intervals, said first icons being proportionately sized to correspond to the number of pictures captured during a predefined temporal interval, the display of the second level is triggered by activating one of said first icons, said 2nd display level comprising a 2nd metaphor, and 2nd icons placed on said second metaphor for grouping the pictures represented by the activated first icons, said second icons being proportionately sized to correspond to the number of pictures captured for each grouping.

Sciammarella et al. teaches an interface comprises calling a plurality of icons that represent different intervals of the database, the size of the icon is corresponding to value (column 3, lines 13-19); and each icon allows a user to "zoom in" for a closer examination of the data. It would have been obvious to an artisan at the time of the invention to include Sciammarella et al.'s interface in order to convey relevant data to the user visually.

Claims 5-8, 10-16, 21-24 and 26-32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ubillos in view of Sciammarella et al., further in view of Patton et al. With respect to these claims the Examiner generally asserts the teachings of Ubillos and Sciammarella et al., and further asserts that Patton et al. teaches an interface operable in one mode that uses thumbnail icons to allow a user index pictures that are related, and a display mode that includes so called "picons" or icons that are linked and activatable to cause the display of related pictures.

B. Response

The Applicants respectfully traverse both rejections on grounds that the Examiner has failed to put forth a prima facie case for unpatentability in that references are not properly combinable and that even if properly combinable the references do not teach or suggest the limitations of the claims of any of Groups I-IV.

1. The claims of Group I are allowable.

a. The Burden Is On the Examiner to Establish a Prima Facie Case of Unpatentability as to a claimed invention.

The initial burden of establishing a prima facie basis to deny patentability to a claimed invention rests upon the Examiner. *In re Oetiker*, 24 USPQ2d 1443 (Fed. Cir. 1992). The Examiner is required to explain why one having ordinary skill in the art would have been led to modify and/or combine the applied prior art to arrive at the claimed invention. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). Indeed, it is the Appellant's position that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Appellants submit that it is well settled that teachings of references can be combined only if there is some suggestion or incentive to do so. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981); *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572 (Fed. Cir. 1984).

In rejecting claims under 35 U.S.C. 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and compare *Stratoflex Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983). In so doing, the Examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988); *Ashland Oil, Inc. v.*

Delta Resins & Refractories, Inc., 776 f.2d 281, 227 USPQ 657 (Fed. Cir. 1985); ASC Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 USPQ 929 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

In this matter, it is the Appellants' position that the Examiner has failed to make the required showings of a factual basis for the combination of the references in the described in the Office Action of January 28, 2004. Specifically, the Applicants assert that the Examiner has failed to establish that there is a motivation for the combinations of references relied upon to reject the claims. Further, it is the Applicants position that even if such combinations are properly combined, the combinations taken as a whole do not teach or suggest the limitations of the claims.

b. Summary of The Cited Prior Art

In general, Ubillos provides a simple timeline user interface for use in video editing software. It will be appreciated that, when creating or editing a video, it is often useful provide such a timeline to allow a user to arrange a sequence of video content, transitions between video content, audio signals, overlays, text messages and the like in a synchronous manner. The user of the video editing software may wish to arrange such editing features using various levels of time based specificity. Accordingly, it is common for such a user interface to allow a user to zoom out the timeline to enable the user to insert content and make gross adjustments to the content on the timeline while also permitting a user to zoom in so that the content thus inserted and arranged can be further arranged with specificity along the timeline.

It is also common for such video editors to provide a scroll bar that a user can "click and drag" to controllably slide the scroll bar along a slide path to indicate an instant in time along the timeline that the user wishes to modify, observe, or adjust. Typically, a display portion on the video editor provides a display window that shows the user on an instant-by-instant basis the results of his or her editing efforts. The video content presented in the display portion corresponds to the portion of the timeline that is indicated by the instant of the

timeline selected by the user using the scroll bar. Thus, at every scale of the timeline, the scroll bar merely provides an indication of what is contained in the video stream, as edited, at a single instant. The relative location of the scroll bar along the slide path typically indicates the position of the currently selected instant of a portion of the video stream relative to a portion of the timeline then being presented.

Ubillos describes a common type of video editor. Ubillos has a timeline 14 that includes a scalable scroll controller 11 that corresponds to an instant in time on a timeline 14. The user uses timeline 14 to arrange image and/or content in the conventional way. A scroll controller 11 is provided along a slide path that is parallel to timeline 14 and indicates a current instant of a single video stream. In one mode of operation a user uses a mouse or other indicator to click on the scroll controller and to holds and moves the scroll controller to move along the timeline from one instant of the video stream to another instant of the video stream.

Ubillos adds a feature to the scroll controller that allows the scroll controller to be used to adjust the time scale of the timeline being presented. Specifically, the scroll controller 11 of Ubillos includes scale controllers 17 and 18 that are used in a second mode of to allow a user to change the size of the scalable scroll controller 11. When the scalable scroll controller 11 is enlarged, the time scale used on timeline 14 is magnified and when the size of scalable scroll controller 11 is reduced, the time scale used on timeline 14 is reduced.

Thus, the principal teaching of Ubillos is a timeline 14 that has a scroll bar 11 that is manually movable to select an instant of interest along a timeline and wherein adjustment of the size of the scroll bar resizes the timescale of a displayed timeline. Importantly, Ubillos teaches only two modes of operation that occur when the scroll bar is manually addressed by the user - either the scroll bar can be manually moved or the scroll bar can be manually enlarged.

Sciammarella et al. provides a method for categorizing a search result based upon a key word search. Each of the documents or images found in the search is displayed as a document icon. The document icons are sized based on the relevancy of the document to the words used in a key word search. In this way

document icons corresponding to documents that have higher match values with respect to the key words of the search are larger in size than document icons corresponding to documents having lower match values. In addition, the relevance of a document is indicated by its' proximity to the keyword displayed on the screen: the closer the icons is displayed in the image to the keyword, the more relevant the document to that keyword. Thus, in essence Sciammarella et al. shows icons that are differently sized icons based upon the relevance of the documents single documents, each icon linked to a single document. In Sciammarella et al., each of the document icons is linked to the actual document so that the actual document can be viewed in greater detail.

c. The Examiner has Not Met the Burden of Establishing A Prima Facie Case of Unpatentability of the Claims of Group 1.

1. The Examiner Has Failed to Provide Evidence of a Motivation For the Combination

The Office Action of January 28, 2004, concedes that neither the Ubillos nor Sciammarella et al. patents individually describe the limitations of claim 1 (see Office Action of January 28, 2004 at Pg. 11). However, the Applicants' respectfully submit that the Examiner has failed to establish evidence of a motivation for such a combination.

Neither reference suggests the need for or the desirability of a combination to meet the limitations of Group I. The only rationale for this combination that the Examiner has provided is that "it would be obvious to an artisan at the time of the invention to include Sciammarella's teaching with Ubillos' interface in order to convey relevant data to the user visually." (Page 3, Office Action dated January 28, 2004) Such a motivation fails because the claims of group 1 do not use the term "relevant data" in the sense that that term is used by Sciammarella et al. to indicate that data is relevant to a key word search. Further, to the extent that the Examiner contends that there is a motivation to combine these references "to convey relevant data to the user" in a more general use of the word "relevant", the Applicants respectfully submit that such a vague and general motivation could be offered in support of any combination of any two graphical interface patents, and, as applied here this rationale merely constitutes the impermissible use of hindsight.

Further, Ubillos describes a video editor with a principal display level comprising a timeline having a manual controlled slide bar allowing selection of an instant of edited video. Sciammarella et al. describes a keyword searching program that returns keyword results in a listing with icons sized in accordance with relevancy. The two forms of display are not inherently compatible except through hindsight.

2. The Combination Destroys Sciammarella et al.

Ubillos shows only one structure of varying size: scroll bar 11 which is manually resizable. Sciammarella et al. shows a display having a plurality of variably sized icons each sized based upon relevancy. The relevancy based sizing of the icons is central to Sciammarella et al. and it destroys the Sciammarella et al. reference to provide a display having a plurality of icons sized based upon some other factor.

Accordingly, the Applicants respectfully submit that the references are not properly combinable as the Examiner has failed to offer objective evidence of a motivation for such a combination and because the combination destroys Sciammarella et al.

d. Even If The References Were Properly Combinable, The Combination as a Whole Does Not Teach Or Suggest The Limitations of the Claims of Group I.

1. The combination of Ubillos and Sciammarella et al. does not teach or suggest, a first metaphor representing a period of time over which pictures stored in [a] database were captured as the timeline of Ubillos receives video content selectively assembled by a user, and is sized in proportion to the duration of the assembled video content.

The Office Action contends that Ubillos shows a first metaphor representing a period of time over which pictures stored in a database were captured. Ubillos does not show this. Ubillos shows only a video editing timeline that is used to receive manually assembled image content. In Ubillos, the period of timeline 14 is defined based upon the time necessary to present all available video clips that are manually associated with timeline 14, (Ubillos, col. 9, lines 17-31) so that at one level of magnification all of the edited video content in timeline 14 can be observable. Ubillos never describes any embodiment wherein

the period of the timeline is based in any way on the period of time over which the images in the timeline were captured.

Thus, even if the timeline of Ubillos is expanded so that all of the content that is assembled to the timeline is shown on one display, nothing in Ubillos suggests that the timeline “represents the span of time over which the images in the database were captured.”

2. The combination of Ubillos and Sciammarella et al. does not teach or suggest, a first display level comprising a first metaphor representing the span of time over which pictures were stored in the database, and a plurality of first icons placed on said first metaphor representing predefined temporal intervals, as the combination of the references does not teach or suggest icons that represent predefined temporal intervals.

The Office Action of January 28, 2004, the Office Action contends that this limitation is found in Sciammarella et al. Specifically, the Office Action suggests that Sciammarella et al. teaches “an interface comprises: a plurality of icons that represent different interval of the database (col. 3, lines 13 - 19). (Office Action of January 28, 2004, page 3) However, col. 3, lines 13 - 19 of Sciammarella et al. state as follows:

As shown in Fig. 2, images of those results (documents) having the highest relevance value are located at the top of the display screen. Results with lower relevance values are displayed toward the bottom of the screen in descending order. It is worth noting that matches with identical relevance are displayed on the same level on the screen.

Thus, the cited portion of Sciammarella et al. merely describes displaying documents found as being relevant in a keyword search results using icons each linked to an individual document and each having a different size based upon the relevance of the document as compared to the search result. The plain language of the cited section of Sciammarella et al. does not teach or suggest a plurality of icons placed on a first metaphor representing predefined temporal intervals.

Ubillos also fails to teach or suggest any arrangement of icons that suggests provision on the timeline of a plurality of icons that represent predefined temporal intervals. As will be discussed in greater detail below, Ubillos shows a scroll controller 11 that indicates a specific instant in time on timeline 14 for editing and review purposes. At no point in Ubillos is the scroll controller 11 said

to indicate more than the specific instant. Similarly, the icons of Sciammarella et al. cannot be said to represent a predefined period of time as they clearly are described only as being linked to a single document, and in that regard always represent only one document.

Thus, Ubillos and Sciammarella et al. alone and in combination taken as a whole fail to teach or suggest a plurality of first icons placed on said first metaphor representing predefined temporal intervals.

3. The Combination of Ubillos and Sciammarella does not teach or suggest a plurality of first icons placed on said first metaphor representing predefined temporal intervals said first icons being proportionally sized to correspond to the number of pictures in the predefined time interval as the references taken as a whole do not show a first icon that is sized to correspond to a number of pictures captured during the predefined interval.

In the Office Action of January 28, 2004, Sciammarella et al. is said to show icons that are sized based upon 'a value'. However, Sciammarella et al. does not suggest that document icons are sized using any "value" other than the relevancy of the document to which they are linked. As noted above, it destroys the reference to combine Sciammarella et al. in any combination where the purpose is to provide icons of variable size with the variable size being based upon some other "value". Yet this is exactly what the Office Action of January 28, 2004 does when it substitutes the term "value" instead of relevancy.

The Response to Arguments section of the Office Action of January 28, 2004 states that:

Ubillos teaches a scroll bar is proportionally sized of the number of documents captured during a predefined temporal interval. (col. 2, lines 23-38) It is inherent that data saved within a year's time is more than the data saved within a month of a year.

In a subsequent communication dated April 23, 2004 the Examiner offered the following argument.

Ubillos teaches second icons are proportionately sized corresponding to the number of pictures captured for each grouping (Fig 5a, item 15). The size of the slide bar described in Fig. 5 is greater when it represents a number of images stored in a year, than number of images stored in a month, it is inherent that there are more images stored in a year than stored in month because there is one image per every second in the timeline. (Col. 7, lines 12-28)

This argument appears to suggest that Ubillos stands for the proposition that a slide bar 11 represents a period of time within timeline 14 the duration of which is set based upon the size of the slide bar. Using this analysis, the Examiner argues that because timeline 14 of Ubillos has one image for every second, any time that slide bar 11 is enlarged to represent a period that is larger than one second, slide bar 11 “represents” more than one image. (Note: Reference number 15 of Ubillos as described in the Communication of April 23, 2004 describes a width of slide bar 11 – See Col. 6, Lines. 39 –45)

This argument appears to suggest that it would have been obvious to provide icons of Sciammarella et al. with sizes that reflect the number of pictures in a predefined temporal interval in a database in the same manner in which the slide bar 11 of Ubillos is larger or smaller when it “represents” different intervals of time.

This argument however fails. As an initial matter, the size of slide bar 11, corresponds only to the timescale of timeline 14. This is clear from the plain language of Ubillos. Specifically, Ubillos states the following with respect to Fig. 5A:

FIG. 5A shows screen shots 25-30 of timeline 14 at various scales ranging from decades to seconds. The selected time is shown by the column of fields 12. The column of fields 12 is divided into rows 19-24, corresponding to convenient time fields, shown on the left-hand side, and the selected time units, shown on the right-hand side. Row 19 gives the year field (Year) and the selected year unit (1975). Row 20 gives the month field (Month) and the selected month unit (Jan). Row 21 gives the day field (Day) and the selected day unit (17th). Row 22 gives the hour field (Hour) and the selected hour unit (11 am). Row 23 gives the 5 minute field (Minute) and the selected minute unit (:05). Row 24 gives the seconds field (Second) and the selected second unit (:13). Thus, the selected time in screen shot 25 in FIG. 5A is 13 seconds past 11:05 am of Jan. 17, 1975.

It can be seen from screen shots 25-30 that timeline 14 looks different for different time scales, even though they represent the same selected time (i.e., 11:05:03 am Jan. 17, 1975).

Thus, what is shown in Figs. 5A of Ubillos is a series of screen prints that clearly show that the scroll bar 11 is used to select a specific instant in the timeline - 11:05:03 am Jan. 17, 1975 and that the width of the scroll bar has no impact on

the instant that is selected. The scroll bar 11 of Ubillos always selects, and in that respect “represents”, only a single instant in time without regard to the size of the scroll bar. From this it is clear that Ubillos cannot be used to suggest that icons should be proportionately sized with respect to a number of pictures that they represent in a database. Instead, Ubillos clearly shows a slide bar 11 the size of which has no relationship whatsoever to the pictures that it indicates or “represents”. In Ubillos, the slide bar always indicates or represents only second or instant of time corresponding to one picture while the icons provided in Sciammarella et al. show icons that represent individual documents and are sized based on relevance. Thus, the combination of these references does not teach or suggest icons that are proportionately sized to correspond to the number of pictures in a predefined time interval.

4. The Combination of Ubillos and Sciammarella et al. also does not teach or suggest a plurality of first icons placed on said first metaphor representing predefined temporal intervals said first icons being proportionally sized to correspond to the number of pictures in the predefined time interval as Ubillos shows only a manually resizable slide controller that always indicates one instant of a video image regardless of size and Sciammarella et al. shows icons sized based upon a relevancy determination.

Ubillos explicitly describes a scalable scroll bar that is manually sized based upon the relative positioning of scale controllers 17 and 18. There is no correlation between the size of the scalable scroll bar 11 and the portion of a timeline indicated by the scalable scroll bar 11. The scroll bar 11 always indicates only one instant in time in timeline 14. Thus, there is no factual basis supporting the assertion that Ubillos describes any icon that is sized proportionally corresponding to a number of documents captured during a predefined temporal interval.

In sum, the document icons of Sciammarella et al. are automatically differently sized based upon relevancy, and the single scalable scroll controller 11 of Ubillos has a size that is manually determined. Importantly, scalable scroll controller 11 of Ubillos always indicates only an instant in time in timeline 14 not withstanding the size of scroll controller 11.

Thus, for this reason also, the combination of the references does not teach or suggest icons that are proportionately sized to correspond to the number of pictures in a predefined time interval.

5. The Combination of Ubillos and Sciammarella et al. does not teach or suggest at least a second display level constructed with the aid of decoded metadata and linked to said first display level and triggered by activating one of said first icons, said second display level comprising a second metaphor and second icons.

The Office Action of January 28, 2004, suggests that this is obvious in view of combination of Ubillos and Sciammarella et al. Specifically, Ubillos is said to show multiple levels of graphical metaphors. The multiple levels are said to be different views of the timeline 14 having different levels of magnification. However, it will be appreciated that Ubillos actually has only one graphical metaphor that is shown in greater or lesser magnification.

Further, the Office Action of January 28, 2004 admits that Ubillos does not teach "a plurality of second icons". Thus, any teaching regarding any second icons must come from Sciammarella et al. In this regard, Sciammarella et al. is said to "[teach] an interface comprises: a plurality of icons that represent different interval of the database, thus size of the icon is corresponding to value (col. 3, lines 13-19); and each icon allows a user to "zoom in" for a closer examination of the data." (Office Action of January 28, 2004, page 3).

As described above, Sciammarella et al. provides icons that are linked to single documents, each icon is sized based upon the degree to which the document that it is linked to is relevant to words used in a key word search. The section of Sciammarella et al. cited in the Office Action of January 28, 2004 describes one way to arrange a plurality of such icons on a display so that more relevant documents are arranged for greater visibility - on the same level of display. There is no discussion in Sciammarella et al. of the use of a second display level comprising a second metaphor and second icons placed on said second metaphor.

Combining this arrangement with the timeline 14 of Ubillos still does not, as a whole, teach or suggest the above-cited limitations. At best the combination would lead one of ordinary skill in the art to present the relevancy sized icons of Sciammarella et al. along a timeline 14 of Ubillos with scroll controller 11 being

manually resizable so as to cause the scale of the timeline 14 to adjust and with the same relevancy sized icons being presented at each different magnification level of the timeline 14 of Ubillos.

6. The combination of Ubillos and Sciammarella et al. does not teach or suggest a second display triggered by activating first icons for the reason that Sciammarella et al. shows only icons that are activatable to access individual documents.

Sciammarella et al. does not suggest that activation of a document icon causes any result other than opening a document to which the icon is linked and Sciammarella et al. does not disclose icons that are activatable to cause a display having second icons that represent groups of pictures to be presented.

Thus, Sciammarella et al. does not alone or taken as a whole in combination with Ubillos teach or suggest a second display level having second icons for grouping pictures represented by the activated first icon.

7. Taken as a whole, combination of Ubillos and Sciammarella et al. further fails to teach or suggest second icons that are proportionately sized corresponding to the number of pictures captured for each grouping.

Sciammarella et al. does not describe second icons that are proportionately sized corresponding to the number of images captured for a grouping of images represented by the icon. The mere suggestion of the Office Action that the size of document icons of Sciammarella et al. varies with respect to “a value” is not dispositive. As noted above, it destroys the Sciammarella et al. reference to use any “value” to determine the size of the document icon other than a relevancy score based on a key word search of the document.

Further, as noted above, in the communication of April 23, 2004, the Examiner has also stated that Ubillos teaches second icons are proportionately sized corresponding to the number of pictures captured for each grouping (Fig 5a, item 15). The size of the slide bar described in Fig. 5 is greater when it represents a number of images stored in a year, than number of images stored in a month, it is inherent that there are more images stored in a year than stored in month because there is one image per every second in the timeline. (Col. 7, lines 12-28)

However, as has been shown above Ubillos does not teach or suggest that there is any correlation between the size of the scroll bar 11 and a number of

pictures indicated thereby. Instead, Ubillos teaches that the scroll bar 11 always indicates a single image or instant of video without regard to the size of the scroll bar 11.

Thus, for any and all of the reasons described above, claim 1 is believed to be allowable. Claims 2, 3, 4 and 9 each depend from claim 1 and accordingly, claims 2, 3, 4 and 9 are believed to be allowable for the reasons stated with respect to claim 1. Claim 17 claims a method for producing a graphical user interface and is believed to be allowable for the same reasons stated with respect to claim 1, further, claims 18, 19, 20 and 25 are also believed to be allowable for the same reasons as claim 17.

2. The Examiner has failed to establish a prima facie case of obviousness as to the claims of Group II.

The claims of Group II stand rejected under 35 U.S.C. 103 as being unpatentable over Ubillos in view of Sciammarella et al, and further in view of Patton (USP 6,408,301).

Claim 5 depends from claim 1 and claim 6 depends from claim 5. Accordingly for the same reasons as put forth with respect to the claims of Group I, the Applicants respectfully submit that there is no motivation for a combination of the Ubillos and Sciammarella et al. Further, the Applicants respectfully submit that the claims of Group II are allowable over the cited combination for the following reasons:

a. The Examiner Has Failed To Establish A Prima Facie Case Of Obviousness As To The Claims of Group II For The Reason That There Is No Motivation To Combine Ubillos, Sciammarella et al. and Patton et al.

Patton et al. is a commonly assigned patent that describes an interactive image storage indexing and retrieval system. The Office Action of January 28, 2004 suggests that Patton et al. teaches “an interface that uses icons to identify the series of pictures that are related to an event.” The stated motivation for such a combination is to “include Patton et al.’s teaching with the interface of Ubillos and Sciammarella et al. in order to index “pictures into an event related group”. (Office Action of January 28, 2004, page 5)

The Applicants respectfully submit that the cited motivation teaches away from Ubillos and Sciammarella et al. Specifically, with respect to claim 5, Patton et al. is cited for teaching a method for a user to organize images into groups. However, the motivation offered by the Examiner for combining the Ubillos and Sciammarella references is to “display relevant data”. It will be appreciated that this is a vague and conclusory motivation that can be used to justify a combination of any patents that display data. The motivation for such a combination therefore fails.

Importantly, such a vague and conclusory motivation can serve as a justification for the impermissible use of hindsight, as appears to have been done here.

b. Even if the references were properly combinable, they would not teach the limitations of claim 5.

As shown above, Ubillos and Sciammarella et al. fail to teach or suggest the limitations of claim 1, and therefore, they also fail to teach or suggest the limitations of claims 5 and 6 which each ultimately depend upon claim 1. Further, the Applicants respectfully submit that the addition of Patton et al. to the aforementioned combination does not teach or suggest the limitations of claim 5. Specifically, claim 5 claims “the graphical interface of Claim 1, wherein the time intervals represented by said first icons correspond to years, and second icons correspond to identified events during which pictures are captured, according to decoded metadata.

The combination of Sciammarella et al. and Ubillos does not suggest, as is claimed in the Office Action of January 28, 2004, that “time intervals represented by said first icons correspond to years.” As discussed in greater detail above, the single scroll bar 11 of Ubillos cannot meet this limitation as it always is used for one of two purposes – selecting an instant on the timeline or defining a scale of the time line. Although the scale of timeline 14 can be longer than a year, the scale controller 11 always indicates only one moment in time on timeline 14. Alternatively, Sciammarella et al. shows a plurality of icons sized based upon relevancy. As noted above, it destroys the reference to use any other factor for determining the size of the icons described therein.

Further, as claimed in claim 5 and claim 1 from which claim 5 depends, the first icons representing years are activatable to open a second metaphor having second icons corresponding to identified events during which pictures are captured according to decoded metadata.

In Patton et al. thumbnail images are used, in one mode, to represent individual images. The user can attach indexing information to each thumbnail image. The user can also build “picons” that are images or thumbnail images that represent groups of related images indexed according to the indexing information. A master index of picons can also be presented as an array of picons. Patton et al. is silent as to whether the picons have a size that varies. Thus, a combination that also includes Patton et al. does not teach or suggest the subject matter of claim 5.

Claim 6 is believed to be allowable for the same reasons stated with respect to claim 1.

Claim 21 is believed to be allowable for the same reasons stated with respect to claim 5, and claim 22 depends from claim 21 and is believed to be allowable for the same reasons.

Accordingly the claims of Group II are believed to be allowable over the cited combination.

3. *The claims of Group III are allowable over the cited references.*

a. The Examiner Has Failed to Establish a Prima Facie Case of Unobviousness as to Claim 7 as There is No Motivation for the Cited Combination.

The claims of Group III stand rejected under 35 U.S.C. 103 as being unpatentable over Ubillos in view of Sciammarella et al., and further in view of Patton et al. (USP 6,408,301).

1. The Examiner has failed to establish a Prima Facie case of unobviousness as to the claims of Group III, for the reason that there is no motivation to combine Sciammarella et al., Ubillos and Patton et al. as Patton is cited in the combination for the additional feature of allowing indexing of individual pictures and not to the display of different metaphors having icons leading to grouped pictures.

Claim 7 depends from claim 1. Accordingly, for the same reasons as put forth with respect to the claims of Group I, the Applicants respectfully submit that there is no motivation for a combination of the Ubillos and Sciammarella et al.

Further, for the following reasons, the Applicants respectfully submit that there is no motivation for a further combination with Patton et al.

Patton et al. is a commonly assigned patent that describes an interactive image storage indexing and retrieval system. The Office Action of January 28, 2004 suggests that Patton et al. teaches “an interface that uses icons to identify the series of pictures that are related to an event.” The stated motivation for such a combination is to “include Patton et al.’s teaching with the interface of Ubillos and Sciammarella et al in order to sort pictures into a location related group”.

The Applicants respectfully submit that such a motivation teaches away from Ubillos and Sciammarella et al. Specifically this teaches a method for a user to organize images into groups. However, the motivation offered by the Examiner for combining the Ubillos and Sciammarella et al. references is to “display relevant data.” Thus, the Examiner combines one set of references wherein the motivation for the combination is to display data with a reference wherein the combination is to enter data. The motivation for such a combination therefore fails.

Further, the motivation fails in that nothing in claim 7 describes or suggests any step wherein a user “sorts pictures into a location related group.” Thus, the stated motivation fails for this reason as well.

2. Even if the references were properly combinable, they would not teach the limitations of claim 7 as Patton et al. teaches organizing images into groups which is not consistent with the language of claim 7 which does not claim this.

As shown above, the combination of Ubillos and Sciammarella, taken as a whole fails to teach or suggest the limitations of claim 1, and therefore, they also fail to teach or suggest the limitations of claim 7 which depends upon claim 1. Further, the Applicants respectfully submit that the addition of Patton et al. to the aforementioned combination does not teach or suggest the limitations of claim 7. Specifically, claim 7 claims “the graphical interface of Claim 1, wherein the time intervals represented by said first icons correspond to years, and second icons correspond to identified locations from which pictures are captured, according to decoded metadata.

As an initial matter, the combination of Sciammarella et al. and Ubillos does not suggest “time intervals represented by said first icons correspond to years” as is claimed in the Office Action of January 28, 2004. As discussed in greater detail above, the single scroll bar 11 of Ubillos cannot meet this limitation as it always is used for one of two purposes – selecting an instant on the timeline or defining a scale of the time line. It never however, represents a period of more than an instant. Alternatively, Sciammarella et al. shows a plurality of icons sized based upon relevancy. As noted above, it destroys Sciammarella et al. to use any other factor for determining the size of the icons described therein.

Further, as claimed in claim 7 the first icons representing years are activatable to open a second metaphor having second icons corresponding to identified locations from which pictures are captured according to decoded metadata. Patton et al. is cited in the Office Action for showing the opposite of this. Specifically, in the Office Action of January 28, 2004, Patton et al. has been cited for presenting individual images that can be manually associated by the user with links so that images can be indexed. In Patton et al. thumbnail images are used, in one mode, to represent individual images. The user can attach indexing information to each thumbnail image. The user can also build “picons” that are images or thumbnail images that represent groups of related images indexed according to the indexing information. A master index of picons can also be presented as an array of picons. Patton et al. is silent as to whether the picons have a size that varies.

Thus, the cited references teach apart. Accordingly the claim 7 is believed to be allowable over the cited combination.

c. The Examiner Has Failed to Establish a Prima Facie Case of Unobviousness as Claim 8.

Claim 8 also stands rejected under 35 U.S.C. 103 as being unpatentable over Ubillos in view of Sciammarella et al., and further in view of Patton (USP 6,408,301).

Claim 8 depends from claim 1. Accordingly for the same reasons as put forth with respect to the claims of Group I, the Applicants respectfully submit that there is no motivation for a combination of the Ubillos and Sciammarella et al.

Further, for reasons stated with respect to claim 7, the Applicants respectfully submit that the references teach apart and are not properly combinable.

Finally, the motivation further fails in that nothing in claim 8 describes or suggests any step wherein a user “organizes images into groups.”

d. Even if the references were properly combinable, they would not teach or suggest the limitations of claim 7 as Patton et al. is cited for teaching a user organizing images into groups which is not consistent with the language of claim 8 does not claim this.

As shown above, Ubillos and Sciammarella et al. fail to teach or suggest the limitations of claim 1, and therefore, they also fail to teach or suggest the limitations of claim 8 which depends upon claim 1. Further, the Applicants respectfully submit that the addition of Patton et al. to the aforementioned combination of Ubillos and Sciammarella et al. does not teach or suggest the limitations of claim 8. Specifically, claim 8 claims “[t]he graphical user interface of Claim 1, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified people present in pictures, according to decoded metadata.”

The combination of Sciammarella et al. and Ubillos does not suggest as is claimed in the Office Action, “time intervals represented by said first icons correspond to years.” As discussed in greater detail above, the single scroll bar 11 of Ubillos cannot meet this limitation as it always is used for one of two purposes – selecting an instant on the timeline or defining a scale of the time line. Alternatively, Sciammarella et al. shows a plurality of icons sized based upon relevancy. As noted above, it destroys the reference to use any other factor for determining the size of the icons described therein.

Further, as claimed in claim 8 the first icons representing years are activatable to open a second metaphor having second icons corresponding to identified people present in pictures according to decoded metadata. Patton et al. is cited as showing the opposite of this, in that the Examiner cites Patton for presenting individual images so that the images can be manually associated by the user with links so that images can be indexed. Further, in Patton the picons are

shown as being activatable to access a group of pictures, but are not described as being activatable to lead to additional levels of icons.

Accordingly, claim 8 is believed to be allowable over the cited combination. Claim 24 is also believed to be allowable for the same reason.

4. The claims of Group IV are allowable over the cited combination

The claims of Group IV stand rejected under 35 U.S.C. 103 as being unpatentable over Ubillos in view of Sciammarella et al., and further in view of Patton (USP 6,408,301). To the extent that claim 10 and the other claims of Group IV depend from claim 1, these claims are is believed to be allowable for the same reasons stated with respect to the claims of Group I. The Applicants respectfully further submit that the claims of Group IV are allowable over the cited combination for the following additional reasons:

a. There is no motivation to combine Ubillos, Sciammarella et al. and Patton et al.

1. Sciammarella et al. only discloses icons that are linked to individual documents and that are sized based upon the relevancy of the document to a keyword search it destroys Sciammarella et al. to combine it with another method to determine icon size.

Claim 10 depends from claim 1. Accordingly, for the same reasons as put forth with respect to the claims of Group I, the Applicants respectfully submit that there is no motivation for a combination of the Ubillos and Sciammarella et al. Further, for the following reasons, the Applicants respectfully submit that there is no motivation for a further combination with Patton et al.

As noted above, Patton et al. is a commonly assigned patent that describes an interactive image storage indexing and retrieval system. The Office Action of January 28, 2004 suggests that Patton et al. teaches “using thumbnail icons to present index of pictures.” The stated motivation for such a combination is to “include Patton et al.’s teaching with the interface of Ubillos and Sciammarella et al. in order to allow quick browsing through multiple images or pages”.

In Patton et al. thumbnail images are used, in one mode, to represent individual images. The user can attach indexing information to each thumbnail image. The user can also build “picons” that are images or thumbnail images that

are linked to groups of related images indexed according to the indexing information. A master index of picons can also be presented as an array of picons. Patton et al. is silent as to whether the picons have a size that varies.

As has been described in greater detail above, Ubillos fails to suggest an icon the size of which is proportional to a number of pictures within a predefined temporal interval. Instead Ubillos teaches away from this in that Ubillos shows a slide bar that is manually resizable and that always indicates only a single moment of a video stream regardless of the size of the slide bar.

Thus, in this combination, it is only Sciammarella et al. that shows a display that uses icons having different sizes. However, as has been discussed extensively above, it destroys Sciammarella et al. to determine the size of the icon based upon any factor other than the relevancy of the document with respect to a keyword search. For this reason alone there is no motivation to combine these references on this point.

Accordingly, it is the Appellant's position that here is no motivation to combine the references in the manner described.

b. Even if the references were properly combinable, they would not teach the limitations of claim 10.

1. Taken as a whole, combination of Ubillos, Sciammarella et al. and Patton et al. fails to teach or suggest that first icons activate a second display level ... having second icons for grouping pictures represented by the first icons and that are proportionately sized corresponding to the number of pictures captured for each grouping.

Claim 10 depends from claim 1, and in that regard, claim 10 is believed to be allowable for the reasons stated above with respect to the claims of Group I. Further, as noted above, Sciammarella et al. describes icons that have sizes that are based only upon one value – the relevancy of a document linked to the icon to a keyword search. Ubillos shows a slide bar that has a variable size that controls the scale of a timeline but that never represents more than one instant or image in a video stream that is associated with the timeline. Patton et al. does not disclose that the picons described therein have a size that is indicative of anything. Thus, taken as a whole, none of these references shows that first icons activate “a second display level ... having second icons for grouping pictures represented by the first

icons and that are proportionately sized corresponding to the number of pictures captured for each grouping.”

2. Taken as a whole, the combination of Ubillos, Sciammarella et al. and Patton et al. does not teach or suggest an additional display level constructed with the aid of decoded metadata, linked to said second display level and triggered by activating one of said second icons, said additional display level comprising additional level thumbnail icons of the pictures represented by the activated second icon.

The combination, taken as a whole does not teach or suggest these limitations. Specifically, Sciammarella et al. and Patton et al. show, respectively, icons that are linked to a single document and picons that are linked to indexed images. Neither shows icons or picons that are linked to second icons on a second geographical metaphor, the second icons, in turn, being linked to an additional display level. In Sciammarella et al. and Patton et al. the icons and picons are linked directly to the documents and indexed images.

Further, Ubillos simply shows a timeline 14 that has a scale that can be changed to show the same timeline metaphor in greater or lesser magnification. However, it is central to Ubillos that the change in scale is manually made using the slide bar 11. The use of static icons or picons to change magnification, as well as access a document or a group of pictures destroys the Ubillos reference which describes the use of the slide bar 11 to change the scale of the timeline 14.

Claims 11, 12, 13, 14, 15, and 16 are believed to be in a condition for allowance for the same reasons as claim 10. Further, claims 22-32 are believed to be allowable for the reasons stated with respect to claims 10-16.

Summary

In summary, it has been shown that the Examiner has failed to make out a prima facie case of obviousness in the Office Action of January 28, 2004 as to all of the claims in that the Examiner has failed to provide evidence of a motivation other than hindsight for the combinations that support the conclusion of obviousness as to those claims and has also combined Sciammarella et al. in each proposed combination in a way that destroys this reference.

Further, it has been shown that even if the references were properly combined, they do not teach or suggest the limitation of the claims of Groups I – IV.

Importantly, the combination of the references fails to show claimed features including, but not limited to, any of:

- a first metaphor representing a span of time over which pictures stored in a database were captured;
- first icons on the first metaphor that represent a predetermined period of time,
- first icons that are sized in accordance with a number of pictures captured within the predetermined period of time,
- first icons that are activatable to trigger a second display level having a second metaphor,
- second icons placed on the second metaphor for grouping the pictures represented by the first activated icon,
- second icons being proportionately sized to correspond to the number of pictures for each grouping.

Further, as noted above, the cited combination fails to teach or suggest other limitations in the claims. Accordingly, all claims of the present application are believed to be in a condition for allowance.

Conclusion

For the above reasons, Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the rejection by the Examiner and mandate the allowance of Claims 1-32.

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Enclosures

Respectfully submitted,



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Appendix I - Claims on Appeal

1. A graphical user interface adapted to browse and retrieve pictures stored in a digital image database, said graphical user interface comprising:

a metadata decoder adapted to decode metadata stored in digital image files;

a first display level constructed with the aid of decoded metadata, said first display level comprising a first metaphor representing the span of time over which pictures stored in said database were captured, and a plurality of first icons placed on said first metaphor representing predefined temporal intervals, said first icons being proportionately sized to correspond to the number of pictures captured during a predefined temporal interval; and

at least a second display level constructed with the aid of decoded metadata and linked to said first display level and triggered by activating one of said first icons, said second display level comprising a second metaphor, and second icons placed on said second metaphor for grouping the pictures represented by the activated first icon, said second icons being proportionately sized to correspond to the number of pictures captured for each grouping.

2. The graphical user interface of Claim 1, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to months, according to decoded metadata.

3. The graphical user interface of Claim 2, further comprising:
at least a third display level constructed with the aid of decoded metadata, linked to said second display level and triggered by activating one of said second icons, said third display level comprising a third metaphor, and third icons placed on said third metaphor for grouping the pictures represented by the activated second icon by the day of the week of capture, said third icons being proportionately sized to correspond to the number of pictures captured for each grouping.

4. The graphical user interface of Claim 3, further comprising:
at least a fourth display level constructed with the aid of decoded metadata, linked to said third display level and triggered by activating one of said third icons, said fourth display level comprising a fourth metaphor, and fourth icons placed on said fourth metaphor for grouping the pictures represented by the activated third icon by the time of day of capture, said fourth icons being proportionately sized to correspond to the number of pictures captured for each grouping.

5. The graphical user interface of Claim 1, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified events during which pictures are captured, according to decoded metadata.

6. The graphical user interface of Claim 5, wherein the display position of said second metaphor is substantially perpendicular to the display position of said first metaphor.

7. The graphical user interface of Claim 1, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified locations from which pictures are captured, according to decoded metadata.

8. The graphical user interface of Claim 1, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified people present in pictures, according to decoded metadata.

9. The graphical user interface of Claim 1, wherein the time intervals represented by said first icons correspond to decades during which pictures are captured, and said second icons correspond to years during which pictures are captured, according to decoded metadata.

10. The graphical user interface of Claim 1, further comprising an additional display level constructed with the aid of decoded metadata, linked to said second display level and triggered by activating one of said second icons, said additional display level comprising additional level thumbnail icons of the pictures represented by the activated second icon.

11. The graphical user interface of Claim 1, wherein the time intervals represented by said first icons correspond to years and said second icons correspond to months, according to decoded metadata, said graphical user interface further comprising an additional display level constructed with the aid of decoded metadata, linked to said second display level and triggered by activating one of said second icons, said additional display level comprising additional level thumbnail icons of the pictures represented by the activated second icon.

12. The graphical user interface of Claim 3, further comprising an additional display level constructed with the aid of decoded metadata, linked to said third display level and triggered by activating one of said third icons, said additional display level comprising additional level thumbnail icons of the pictures represented by the activated third icon.

13. The graphical user interface of Claim 4, further comprising an additional display level constructed with the aid of decoded metadata, linked to said fourth display level and triggered by activating one of said fourth icons, said additional display level comprising additional level thumbnail icons of the pictures represented by the activated fourth icon.

14. The graphical user interface of Claim 1, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified events during which pictures are captured, according to

decoded metadata, said graphical user interface further comprising an additional display level constructed with the aid of decoded metadata, linked to said second display level and triggered by activating one of said second icons, said additional display level comprising additional display level thumbnail icons of the pictures represented by the activated second icon.

15. The graphical user interface of Claim 1, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified locations from which pictures are captured, according to decoded metadata, said graphical user interface further comprising an additional display level constructed with the aid of decoded metadata, linked to said second display level and triggered by activating one of said second icons, said additional display level comprising additional display level thumbnail icons of the pictures represented by the activated second icon.

16. The graphical user interface of Claim 1, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified people present in pictures, according to decoded metadata, said graphical user interface further comprising an additional display level linked to said second display level and triggered by activating one of said second icons, said additional display level comprising additional display level thumbnail icons of the pictures represented by the activated second icon.

17. A method of producing a graphical user interface (GUI) adapted to browse and retrieve pictures stored in a digital image database, said method comprising the steps of:

decoding metadata stored in digital image files;

providing a first GUI level constructed with the aid of decoded metadata, said first GUI level comprising a first metaphor representing the span of time over which pictures stored in said database were captured, and a plurality of first icons placed on said first metaphor representing predefined temporal intervals, said first icons being proportionately sized to correspond to the number of pictures captured during a predefined temporal interval; and

providing at least a second GUI level constructed with the aid of decoded metadata, linked to said first GUI level and triggered by activating one of said first icons, said second GUI level comprising a second metaphor, and second icons placed on said second metaphor for grouping the pictures represented by the activated first icon, said second icons being proportionately sized to correspond to the number of pictures captured for each grouping.

18. The method of Claim 17, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to months, according to decoded metadata.

19. The method of Claim 18, further comprising the step of:
providing at least a third GUI level constructed with the aid of decoded metadata, linked to said second GUI level and triggered by activating one of said

second icons, said third GUI level comprising a third metaphor, and third icons placed on said third metaphor for grouping the pictures represented by the activated second icon by the day of the week of capture, said third icons being proportionately sized to correspond to the number of pictures captured for each grouping.

20. The method of Claim 19, further comprising the step of:
providing at least a fourth GUI level constructed with the aid of decoded metadata, linked to said third GUI level and triggered by activating one of said third icons, said fourth GUI level comprising a fourth metaphor, and fourth icons placed on said fourth metaphor for grouping the pictures represented by the activated third icon by the time of day of capture, said fourth icons being proportionately sized to correspond to the number of pictures captured for each grouping.

21. The method of Claim 17, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified events during which pictures are captured, according to decoded metadata.

22. The method of Claim 21, wherein the display position of said second metaphor is substantially perpendicular to the display position of said first metaphor.

23. The method of Claim 17, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified locations from which pictures are captured, according to decoded metadata.

24. The method of Claim 17, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified people present in pictures, according to decoded metadata.

25. The method of Claim 17, wherein the time intervals represented by said first icons correspond to decades during which pictures are captured, and said second icons correspond to years during which pictures are captured, according to decoded metadata.

26. The method of Claim 17, further comprising the step of:
providing an additional GUI level constructed with the aid of decoded metadata, linked to said second GUI level and triggered by activating one of said second icons, said additional GUI level comprising additional GUI level thumbnail icons of the pictures represented by the activated second icon.

27. The method of Claim 17, wherein the time intervals represented by said first icons correspond to years and said second icons

correspond to months, according to decoded metadata, said method further comprising the step of:

providing an additional GUI level constructed with the aid of decoded metadata, linked to said second GUI level and triggered by activating one of said second icons, said additional GUI level comprising additional GUI level thumbnail icons of the pictures represented by the activated second icon.

28. The method of Claim 19, further comprising the step of:

providing an additional GUI level constructed with the aid of decoded metadata, linked to said third GUI level and triggered by activating one of said third icons, said additional GUI level comprising additional GUI level thumbnail icons of the pictures represented by the activated third icon.

29. The method of Claim 20, further comprising the step of:

providing an additional GUI level constructed with the aid of decoded metadata, linked to said fourth GUI level and triggered by activating one of said fourth icons, said additional GUI level comprising additional GUI level thumbnail icons of the pictures represented by the activated fourth icon.

30. The method of Claim 17, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified events during which pictures are captured, according to decoded metadata, said method further comprising the step of:

providing an additional GUI level constructed with the aid of decoded metadata, linked to said second GUI level and triggered by activating one of said second icons, said additional GUI level comprising additional GUI level thumbnail icons of the pictures represented by the activated second icon.

31. The method of Claim 17, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified locations from which pictures are captured, according to decoded metadata, said method further comprising the step of:

providing an additional GUI level constructed with the aid of decoded metadata, linked to said second GUI level and triggered by activating one of said second icons, said additional GUI level comprising additional GUI level thumbnail icons of the pictures represented by the activated second icon.

32. The method of Claim 17, wherein the time intervals represented by said first icons correspond to years, and said second icons correspond to identified people present in pictures, according to decoded metadata, said method further comprising the step of:

providing an additional GUI level constructed with the aid of decoded metadata, linked to said second GUI level and triggered by activating one of said second icons, said additional GUI level comprising additional GUI level thumbnail icons of the pictures represented by the activated second icon.